

VERSION WITH MARKINGS TO SHOW CHANGES MADE

1. (Amended) A method for managing channel assignment in a wireless communication system having a predetermined frequency band for use in establishing communication connections[bandwidth, said predetermined bandwidth being divided into a plurality of sub-bands that each include a plurality of channels], said method comprising the steps of:

dividing the predetermined frequency band into a plurality of frequency sub-bands;

implementing a multiple access scheme within each of said plurality of frequency sub-bands;

specifying a power range for each of said plurality of frequency sub-bands[within the plurality of sub-bands], said power range representing a range of signal powers that are to be supported by one of a plurality of [individual] channels within [the]each of said plurality of frequency sub-bands, wherein at least two of said plurality of frequency sub-bands are assigned power ranges that are different from one another;

ascertaining a power level associated with a first [wireless] communication connection in [said] the wireless communication system;

identifying at least one [sub-band within] of said [the]plurality of frequency sub-bands that has a power range encompassing said power level; and

assigning a channel within said at least one of said plurality of frequency sub-bands that has said power range encompassing said power level to said first [wireless]communication connection.

2. (Amended) The method claimed in claim 1, wherein:

said plurality of frequency sub-bands includes a first frequency sub-band having a plurality of code division multiple access (CDMA)channels.

3. (Amended) The method claimed in claim 1, wherein:

said plurality of frequency sub-bands includes a first frequency sub-band having a plurality of time division multiple access (TDMA) channels.

4. (Amended) The method claimed in claim 1, wherein:

said step of ascertaining a power level includes measuring a power level of a signal received via said first communication [wireless] connection.

5. (Amended) The method claimed in claim 1, wherein:

said step of ascertaining a power level includes determining a transmit power level required to communicate with a remote entity via said first communication[wireless] connection.

6. (Amended) The method claimed in claim 1, wherein:

said wireless communication system includes a satellite communication system, wherein said predetermined frequency bandwidth represents a bandwidth available for communication between a satellite and a plurality of terrestrial users.

7. (Amended) A system for providing wireless communication between a communication platform and a plurality of subscribers, said system comprising:

[having] a predetermined [available bandwidth]frequency band for providing said wireless communication, said predetermined [available bandwidth]frequency band being divided into a plurality of frequency sub-bands that are each capable of supporting a plurality of communication channels[, said system comprising:];

means for specifying a power range for each of said plurality of frequency sub-bands, said power range representing a range of signal powers that are to be supported by one of a plurality of channels within each of said plurality of frequency sub-bands;

means for determining a power level associated with a wireless connection between said communication platform and one of the plurality of subscribers;

means for selecting at least one of said plurality of frequency sub-bands that has a power range encompassing[based on] said power level determined by said means for determining; and

means for assigning a channel within said [selected]at least one of said plurality of frequency sub-bands that has said power range encompassing said power level determined by said means for determining to said wireless connection for use in providing wireless communication between said communication platform and said one of said plurality of subscribers.

8. (Amended) The system claimed in claim 7, wherein:

said plurality of frequency sub-bands includes a first frequency sub-band having a plurality of code division multiple access (CDMA) channels.

9. (Amended) The system claimed in claim 7, wherein:

said plurality of frequency sub-bands includes a first frequency sub-band having a plurality of time division multiple access (TDMA) channels.

10. (Amended) The system claimed in claim 7, further comprising:

means for monitoring said wireless connection to determine whether a power condition has changed during said wireless connection; and

means for assigning a new channel within a different frequency sub-band to said wireless connection when said means for monitoring determines that said power condition has changed.

Please cancel claim 11 without disclaimer or prejudice.

12. (Amended) A method for providing multiple access communications between a first location and a second location, said method comprising the steps of:

providing a predetermined frequency band for use in establishing communication connections between said first location and said second location;

segmenting said predetermined frequency band into a plurality of frequency sub-bands;

providing a [plurality of code division multiple access channels]multiple access scheme within each of said plurality of frequency sub-bands;

specifying a power range for each of said plurality of frequency sub-bands, said power range representing a range of signal powers that are to be supported by one of a plurality of channels within each of said plurality of frequency sub-bands; and

limiting communication within each of the plurality of frequency sub-bands to signals having a power level within said power range[meeting a predetermined power criterion].

Please cancel claim 13 without disclaimer or prejudice.

14. (Amended) The method claimed in claim [13]12, wherein:

said limiting step includes determining [a]said power level associated with a first communication connection and selecting [a]one of said plurality of frequency sub-bands from said plurality of frequency sub-bands for use by said first communication connection based on said power level.

15. (Amended) The method claimed in claim 14, wherein:

said limiting step includes assigning a CDMA channel within said [selected]one of said plurality of frequency sub-bands to said first communication connection.

16. (Amended) The method claimed in claim 12, wherein:

said step of segmenting said predetermined frequency band into a plurality of frequency sub-bands includes defining a plurality of receive frequency sub-bands.

17. (Amended) The method claimed in claim 12, wherein:

said step of segmenting said predetermined frequency band into a plurality of frequency sub-bands includes defining a plurality of transmit frequency sub-bands.

Please cancel claim 18 without disclaimer or prejudice.

19. The method claimed in claim 12, wherein:

said first location includes a multi-channel communications satellite orbiting about a primary body.

20. The method claimed in claim 19, wherein:

said second location includes a footprint region on said primary body associated with said multi-channel communications satellite.

21. (Amended) A method for providing multiple access communications between a first location and a second location, said method comprising the steps of:

providing a predetermined frequency band for use in establishing communication connections between said first location and said second location;

dividing said predetermined frequency band into a plurality of independent communication channels using at least two different multiple access methods;

separating said plurality of independent communication channels into a plurality of channel groups;

specifying a power range for each of said plurality of channel groups, said power range representing a range of signal powers that are to be supported by one of a plurality of channels within each of said plurality of channel groups; and

limiting communication within each of the plurality of channel groups to signals having a power level within said power range[meeting a predetermined power criterion].

22. The method claimed in claim 21, wherein:

said at least two different multiple access methods includes frequency division multiple access (FDMA) and code division multiple access (CDMA).

23. The method claimed in claim 21, wherein:

said at least two different multiple access methods includes frequency division multiple access (FDMA) and time division multiple access (TDMA).

24. The method claimed in claim 21, wherein:

said at least two different multiple access methods includes time division multiple access (TDMA) and code division multiple access (CDMA).

25. The method claimed in claim 21, wherein:

said at least two different multiple access methods includes frequency division multiple access (FDMA), time division multiple access (TDMA), and code division multiple access (CDMA).

Please cancel claim 26-27 without disclaimer or prejudice.